

IN THE CLAIMS

Please amend the claims as follows.

1 (Original) An apparatus for a wireless communication system supporting packet data transmissions, comprising:

means for receiving a rate request indicator DRR for a mobile station;
means for determining a fairness parameter α for the mobile station;
means for calculating a projected throughput value T' for the mobile station as a function of the rate request indicator;
means for calculating a priority function for the mobile station as $DRR/(T')^\alpha$; and
means for scheduling transmissions to the mobile stations according to the priority functions.

2. (Original) The apparatus as in claim 1, wherein the means for calculating the priority function further comprises means for calculating the priority function using a monotonic function of $(T')^\alpha$.

3. (Original) The apparatus of claim 1, wherein each of the rate request indicators is a data rate request received from one of the plurality of mobile stations.

4. (Original) The apparatus of claim 1, wherein each of the rate request indicators is a carrier-to-interference ratio received from one of the plurality of mobile stations.

5. (Original) The apparatus of claim 1, further comprising:
means for transmitting data to the plurality of mobile stations in response to scheduling transmissions.

6. (Original) The apparatus of claim 1, further comprising:

means for updating the priority functions of scheduled mobile stations as a function of the rate request indicator.

7. (Original) The apparatus of claim 6, further comprising:

means for updating the priority functions of non-scheduled mobile stations assuming the rate request indicator is equal to zero.

8. (Original) An apparatus for scheduling packet data transactions in a wireless communication system, comprising:

means for determining a pool of users;

means for calculating a priority function of at least a portion of the pool of users;

means for scheduling a first set of users having pending data transactions from the portion of the pool of users;

means for receiving rate request indicators from the portion of the pool of users; and

means for updating priority functions of the first set of users as the rate request indicators divided by a function of projected throughput and a fairness parameter.

9. (Original) The apparatus of claim 8, further comprising:

means for updating a second set of users within the portion of the pool of users different from the first set of users using a rate request of zero.

10. (Original) The apparatus as in claim 8, wherein the portion of the pool of users are users having pending data.

11. (Original) The apparatus as in claim 10, wherein the first set of users comprises one user.

12. (Cancelled)

13. (Cancelled)

14. (New) A computer-program product for a wireless communication system supporting packet data transmissions, the computer-program product comprising a computer readable medium having executable instructions thereon, the instructions comprising:

code for receiving a rate request indicator DRR for a mobile station;

code for determining a fairness parameter α for the mobile station;

code for calculating a projected throughput value T' for the mobile station as a function of the rate request indicator;

code for calculating a priority function for the mobile station as $DRR/(T')^\alpha$; and

code for scheduling transmissions to the mobile stations according to the priority functions.

15. (New) A computer-program product for scheduling packet data transactions in a wireless communication system, the computer-program product comprising a computer readable medium having executable instructions thereon, the instructions comprising:

code for determining a pool of users;

code for calculating a priority function of at least a portion of the pool of users;

code for scheduling a first set of users having pending data transactions from the portion of the pool of users;

code for receiving rate request indicators from the portion of the pool of users; and

code for updating priority functions of the first set of users as the rate request indicators divided by a function of projected throughput and a fairness parameter.